

Title (en)

ELECTROSTATIC PRECIPITATOR VOLTAGE CONTROLLER HAVING IMPROVED ELECTRICAL CHARACTERISTICS

Publication

EP 0280298 A3 19890823 (EN)

Application

EP 88102821 A 19880225

Priority

US 1903187 A 19870226

Abstract (en)

[origin: EP0280298A2] A control system for controlling high power from an AC source for electrostatic precipitators. The AC power is gated both on and off during the same half-cycle of the AC source. The gating off of the AC power occurs at a time substantially different from the time of the zero crossings of the AC source. The AC source may be gated on and off respectively before and after each peak to provide high voltage to the precipitator electrodes while the period of such pulsing is kept short enough to prevent arcing. Additionally, the source may be gated on after one peak and gated off before the next peak, thereby providing high voltage to the electrodes without applying the peak voltage of the AC. Further in accordance with the invention, such gating may be performed using gate turn-off thyristors. The pulses may be symmetric about the peaks or about the zero-crossings of the source. The source may also be gated on and off a plurality of times during each half cycle.

IPC 1-7

B03C 3/68; H02M 5/257

IPC 8 full level

B03C 3/68 (2006.01)

CPC (source: EP US)

B03C 3/68 (2013.01 - EP US); **Y10S 323/903** (2013.01 - EP US)

Citation (search report)

- [X] DE 2162988 A1 19720713 - INT STANDARD ELECTRIC CORP
- [AD] US 4390830 A 19830628 - LAUGESSEN THOMAS C
- [AD] US 4326860 A 19820427 - LAUGESSEN THOMAS C
- [A] IEE PROCEEDINGS vol. 133, no. 6, November 1986, Stevenage, Herts, GB page 369 - 399; J.D. VAN WYK et al: "Power electronics, control of the electromechanical energy conversion process and some applications"

Designated contracting state (EPC)

AT BE CH DE ES FR GB GR IT LI LU NL SE

DOCDB simple family (publication)

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